Random Numbers Exercises

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rand()

- Briefly describe some disadvantages of the traditional approach to generating random numbers
- Write a program which uses rand() to print out
  - A random floating-point number between 0 and 1
  - 10 random integers between 1 and 100

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Random Numbers

- Give an outline description of how to obtain random numbers in modern C++

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Random number engine

- What is the purpose of a random number engine?
- How do we use a random number engine?
- Which random number engine is generally the best one to use?

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Distribution

- What is the purpose of a distribution type?
- Which distributions are most useful when generating random numbers?
- Why are these particular distributions useful?

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Random number example

- Write a simple program which
  - Prints out ten integers with random values between 0 and 100
  - Prints out ten floating point numbers with random values between 0 and 1

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std::random_device

- Explain how random_device generates random numbers
- Why is random_device not suitable for generating large quantities of numbers?
- What is the most common use for random_device?

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Random engine usage

- Why is it good practice to make engine and distribution instances static or global?

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